

CLAIMS

1. A slide block for a tilt window sash, comprising:
a body adapted to be received in a window jamb channel, the body defining a sash pivot-receiving aperture; and
a sash pivot retainer spring integrally formed with the body, the spring positionable between a first position obstructing removal of a sash pivot when the sash pivot is disposed in the aperture and a second position permitting removal thereof.
2. The slide block of claim 1, wherein the body further comprises oppositely disposed sliding surfaces for guiding the body in the window jamb channel.
3. The slide block of claim 1, wherein the sash pivot retainer spring comprises an elongated locking arm including a first end integrally formed with the body and a second end deflectable between the first position and the second position.
4. The slide block of claim 1, further comprising a second sash pivot retainer spring integrally formed with the body, the spring positionable between the first position obstructing removal of the sash pivot when the sash pivot is disposed in the aperture and the second position permitting removal thereof.
5. The slide block of claim 4, wherein the first and second sash pivot retainer springs are configured opposite each other.
6. The slide block of claim 1, further comprising a locking mechanism for selectively engaging the window jamb channel and locking the block in a fixed position.
7. The slide block of claim 6, wherein the locking mechanism comprises:

a cam carried in the body, the cam including camming surfaces to contact and operate the locking mechanism and defining the sash pivot-receiving aperture, the sash pivot-receiving aperture having an open top slot; and.

a locking spring including oppositely disposed serrated end positions, the spring disposed about the cam and operated by contacting the camming surfaces.

8. The slide block of claim 1, wherein the second sash pivot retainer spring comprises an elongated locking arm including a first end integrally formed with the body, and a second end deflectable between the first position and the second position.

9. The slide block of claim 8, wherein the respective second ends of the first and second sash pivot retainer springs engage each other responsive to application of a removal force to the sash pivot.

10. A window balance system for use in a window jamb with a tilt window sash, comprising:
a window balance; and

a slide block coupled to the window balance, the slide block comprising:

a body adapted to be received in a window jamb channel, the body defining a sash pivot-receiving aperture; and

a sash pivot retainer spring integrally formed with the body, the spring positionable between a first position obstructing removal of a sash pivot when the sash pivot is disposed in the aperture and a second position permitting removal thereof.

11. The window balance system of claim 10, wherein the window balance comprises a block and tackle type balance.

12. The window balance system of claim 10, wherein the sash pivot retainer spring comprises an elongated locking arm including a first end integrally formed with the body and a second end deflectable between the first position and the second position.

13. The window balance system of claim 10, further comprising a second sash pivot retainer spring integrally formed with the body, the spring positionable between the first position obstructing removal of the sash pivot when the sash pivot is disposed in the aperture and the second position permitting removal thereof.

14. The window balance system of claim 10, further comprising a locking mechanism for selectively engaging the window jamb channel and locking the block in a fixed position.

15. A tilt-in window sash assembly, comprising:

a frame comprising a window jamb forming a channel;

at least one tilt-in window sash, the tilt-in window sash operatively slideable in the window jamb and tiltable with respect thereto; and

at least one window balance coupled to a slide block disposed in the window jamb channel, the slide block comprising:

a body adapted to be received in the window jamb channel, the body defining a sash pivot-receiving aperture; and

a sash pivot retainer spring integrally formed with the body, the spring positionable between a first position obstructing removal of a sash pivot when the sash pivot is disposed in the aperture and a second position permitting removal thereof.

16. The tilt-in window sash assembly of claim 15, wherein the sash pivot retainer spring comprises an elongated locking arm including a first end integrally formed with the body, and a second end deflectable between the first position and the second position.

17. The tilt-in window sash assembly of claim 15, further comprising a second sash pivot retainer spring integrally formed with the body, the spring positionable between the first position obstructing removal of the sash pivot when the sash pivot is disposed in the aperture and the second position permitting removal thereof.

18. The tilt-in window sash assembly of claim 15, further comprising a locking mechanism for selectively engaging the window jamb channel and locking the block in a fixed position.

19. A method of selectively retaining a tilt window sash within a window frame to prevent inadvertent removal of the sash, the method comprising the steps of:

coupling the sash to the frame with a pivot bar and a slide block, the slide block comprising:

a body adapted to be received in a window jamb channel, the body defining a sash pivot-receiving aperture; and

a sash pivot retainer spring integrally formed with the body, the spring positionable between a first position obstructing removal of a sash pivot when the sash pivot is disposed in the aperture and a second position permitting removal thereof; and

retaining the sash within the frame by occluding at least a portion of the pivot-receiving aperture with the sash pivot retainer spring in the first position.

20. The method of claim 19, further comprising the step of actuating a locking mechanism to selectively engage the window jamb channel and lock the block in a fixed position.

21. The method of claim 20, wherein the locking mechanism comprises:

a cam carried in the body, the cam including camming surfaces to contact and operate the locking mechanism and defining the sash pivot-receiving aperture, the sash pivot-receiving aperture having an open top slot; and

a locking spring having oppositely disposed serrated end positions, the spring disposed about the cam and operated by contacting the camming surfaces.

22. The method of claim 19, further comprising the step of removing the sash by manually actuating the sash pivot retainer spring to the second position by deflecting the sash pivot retainer spring.

23. The method of claim 22, wherein the deflecting step comprises contacting the sash pivot retaining spring with a pivot-removal tool to deflect sash pivot retainer spring to the second position, thereby allowing for removal of the sash pivot from the pivot-receiving aperture.